OR-7. OVERVIEW OF THE PHYSIOLOGICAL ACTIVITIES OF FERMENTED PRODUCTS BASED ON *MONASCUS PURPUREUS*

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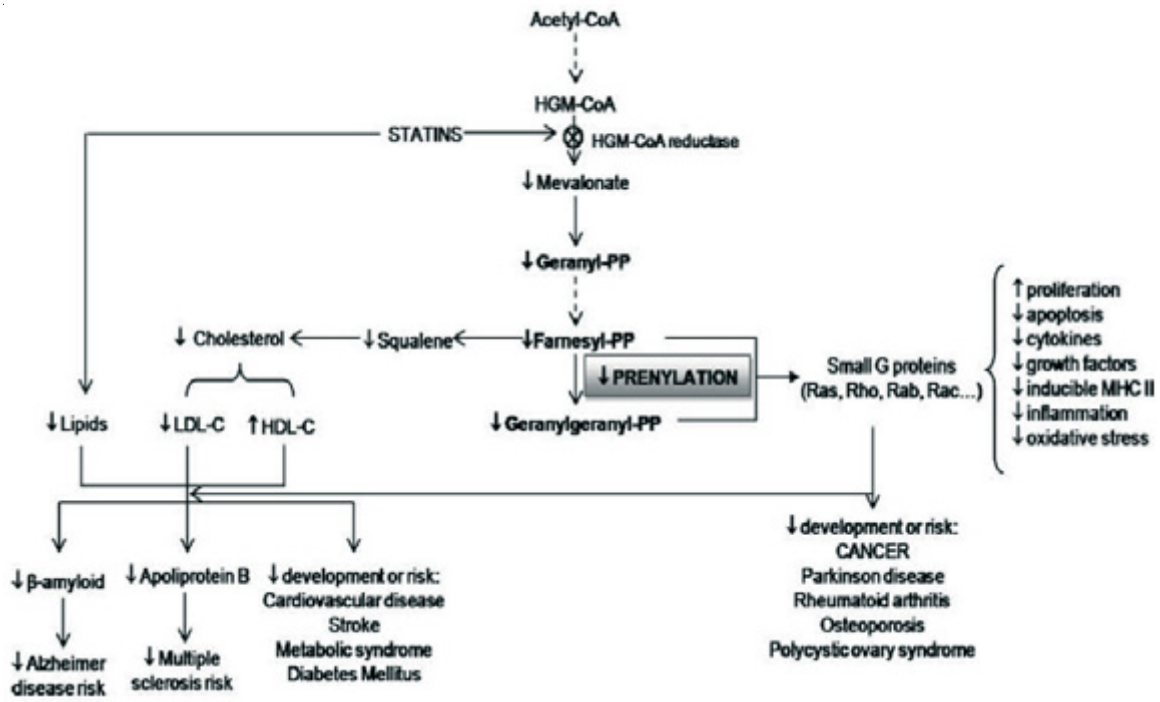
Despite the fact that application of *Monascus Purpureus*, a type of red yeast, in foodstuff dates back over thousands of years, studies on its efficacy on human health are still limited. Simultaneously with the ongoing arguments, *M. Purpureus* was recorded for many purposes such as a valuable coloring, flavoring, brewing wine, and being preservative and therapeutic agent [1]. Hence, the functional properties underlying the release of the bioactive metabolites of *Monascus* have been intensively investigated. Thanks to its edible pigments, isoflavones, enzymes, fatty acids, organic acids, dimerumic acid (antioxidant), vitamins, γ-aminobutyric acid, hypotensive agent), monacolin K (lovastatin), anti-hypercholesterolemic agent, *M. Purpureus* gains multiple functions such as preventing osteoporosis and stroke, antioxidative stress and antifatigue. Above and beyond, it plays an efficient role such as anti-inflammation, anti-diabetes, immunomodulation, attenuation of Alzheimer's disease risk factor and anti-tumorigenic effects [2]. However, Food and Drug Administration (FDA) has taken a cautionary action against it as a result of its lovastatin and citrinin content. For these reasons, understanding the relationships among *M. Purpureus* production conditions, biological activities, and its toxicity complications will aid the discovery of novel products and innovative therapeutic treatments for many serious diseases.



Model explaining the great variety of biological effects of Statins obtained from *Monascus* spp and, hence, current and potential ways of their use

The present study is focusing on the investigation of the physiological activity of *M. Purpureus* – fermented products that come up via its production and consumption. Red yeast rice (RYR) is one of the major functional products manufactured with *M. Purpureus* species. Along with the impact RYR has, an intensive study should demonstrate the process of production for safe consumption, especially for vegetarians. Although we have paved the way in the current review, more manipulations are required for eliminating the side effects and introducing highly accepted and healthy fermented products.

References

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